2/19/24

DIALOG(R) File 347: JAPIO

(c) 2003 JPO & JAPIO. All rts. reserv.

05726301 \*\*Image available\*\*
SEAL DEVICE OF BEARING

PUB. NO.: 10-009401 [JP 10009401 A] PUBLISHED: January 13, 1998 (19980113)

INVENTOR(s): KUWAYAMA AKITAKA

APPLICANT(s): KAWASAKI STEEL CORP [000125] (A Japanese Company or

Corporation), JP (Japan)

APPL. NO.: 08-166962 [JP 96166962] FILED: June 27, 1996 (19960627)

INTL CLASS: [6] F16J-015/32

JAPIO CLASS: 22.1 (MACHINERY -- Machine Elements)

## **ABSTRACT**

PROBLEM TO BE SOLVED: To suppress abrasion of an oil seal and a roll shaft without deteriorating seal function by providing with a pressure bar spring for tightly contracting the lip of the oil seal to a diameter direction inner side in the oil seal, and elastically enlarging the diameter of the lip contracted by the pressure bar spring, bringing its surface of the lip into contact with the roll shaft.

SOLUTION: In an oil seal, the width of the lip 8 of a seal main body 7 made of hard rubber is enlarged, the lip 8 is tightly contracted by a plurality of pressure bar springs 9, and thereby, the diameter of the lip 8 is gradually shortened toward its top end. The inner diameter in the base part of the lip 8 is nearly matched with the outer diameter of a roll shaft 6 which is an object therefor. The oil seal is arranged on the bearing cover 5a of a bearing 5, and the roll shaft 6 is mounted, and thereby, the lip 8 is pushed and enlarged so as to enlarge the diameter thereof elastically. namely, the lip 8 is brought into contact with the circumferential surface of the roll shaft 6 from the base part of the lip 8 to its top end completely, and its contact area is enlarged under low contact surface pressure.

C:\Program Files\Dialog\DialogLink\Graphics\1C.bmp

